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Five New Species of *Nabepselaphus* (Insecta: Coleoptera: Staphylinidae: Pselaphinae) from Yunnan, Southwestern China

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Five new species of the pselaphine genus *Nabepselaphus* Nomura, 2002, collected from Yunnan, southwestern China, are described: *N. yinae*, *N. yunnanicus*, *N. laohushanus*, *N. jizushanus*, and *N. yulongxueshanus*. A key to the species of *Nabepselaphus* is provided.

Key Words: Staphylinidae, Pselaphinae, *Nabepselaphus*, new species, China.

Introduction

The Chinese fauna of the ant-like litter beetle tribe Pselaphini is poorly known but undoubtedly rich. For example, 12 undescribed species of this tribe classified into at least four genera, were recognized from Yunnan Province alone (Nomura 2000). It is to be expected that many pselaphine species still remain unnamed in China. Recently, eight new species of the genus *Pselaphogenius* of this tribe were described by Nomura (2003).

The genus *Nabepselaphus* was recently described by Nomura (2002) for a new species, *N. yasukii* Nomura, 2002, collected from the Diancangshan Mountains in Dali-shi of Yunnan Province, southwestern China. This type species and the five new species of *Nabepselaphus* described below were isolated from leaf litter deposited in deciduous forests in high mountains at altitudes higher than 2,000 m. This genus is characterized by the unique shape of pronotum, which has a shallow median depression, a pair of lateral longitudinal grooves, and a transverse antebasal sulcus. The antebasal sulcus is similar to that of the genus *Pselaphaulax* and is considered to be plesiomorphic (Nomura 2002).

In the present study, five new species of this genus are described from Yunnan. They were previously recorded by Nomura (2000) as unidentified species of *Pselaphogenius* or an unknown genus. A key to the species of *Nabepselaphus* is also provided herein.

Materials and Methods

Body length is the combined total of the cephalic, pronotal, elytral, and abdominal lengths; the abdominal length includes the length of the fifth through eighth

abdominal segments, as in Nomura (2002).

The chaetotaxial formula of the elytra used here is the same as that in Nomura (2002). The formula indicates the number of lines of hairs in each longitudinal row proceeding from the mesal to the lateral part, i.e., adsutural row–interval I–median row–interval II–lateral row–interval III–lateral area.

All of the holotypes and some paratypes are deposited in the collection of the National Science Museum, Tokyo (NSMT). However, some paratype specimens will be distributed to various institutes in China.

Systematics

Genus *Nabepselaphus* Nomura, 2002

Nabepselaphus Nomura, 2002: 281. Type species: *Nabepselaphus yasukii* Nomura, 2002, by original designation.

Remarks. This genus was recently established on the basis of the type species collected from Dali-shi, Yunnan, China. It is easily separated from the other genera of the tribe Pselaphini by features of the pronotum, *viz.* possession of a glabrous median depression, a pair of glabrous lateral grooves, and a transverse sulcus connecting the lateral foveae.

Nabepselaphus yinae sp. nov.

(Figs 1A, 2A–B, 3A–C, 9A, 10A–B)

Type material. Holotype: ♂ (NSMT-I-C 200031), Dabei, 2,440 m alt., Gaoligongshan Mts., Tengchong Xian, 11-X-1996, K. Ishii *et al.* leg. Paratypes: 3♂, same data as for holotype; 1♀, same data as above, but 2,240 m alt.; 1♀, Hongxinshubeihou, 2,700 m alt., Gaoligongshan Mts., Baoshan, 25-IV-1996, collected by staff of Shanghai Institute of Entomology, Academia Sinica.

Description. *Male.* Body length 1.74–1.76 mm, width 0.69–0.71 mm. Body (Fig. 1A) middle-sized, reddish brown to dark brown; maxillary palpi and tarsi yellowish.

Head (Fig. 2A) ovoid in dorsal view, with narrow notch and glabrous longitudinal groove on frontal rostrum; vertex weakly convex, sparsely pubescent, with pair of large, round dorsal tentorial pits; postgenae large and sparsely pubescent; gular area densely covered with scales (Fig. 2B). Eyes (Fig. 2A, B) very large and ovoid, each composed of 10–12 facets. Antennae (Fig. 1A) long and slender, reaching base of elytra; 1st segment large and elongate, subcylindrical in apical part; 2nd longer than wide, obliquely subcylindrical; 3rd to 6th subequal in length, each slightly longer than wide, small and ovoid; 7th slightly longer than 6th; 8th shorter than 7th, as long as wide; 9th and 10th subequal in length, each large and ovoid, 10th slightly wider than 9th; 11th largest and ovoid, 1.8 times as long as wide; relative lengths (widths) of 1st to 11th segments to width of 1st segment 2.4 (1.0): 1.0 (0.8): 0.8 (0.7): 0.8 (0.7): 0.8 (0.7): 0.8 (0.7): 0.8 (0.7): 0.8 (0.7): 1.1 (0.9): 1.1 (1.0): 2.3 (1.3). Maxillary palpi (Fig. 2A) elongate and slender; 4th segment largest, sparsely cov-

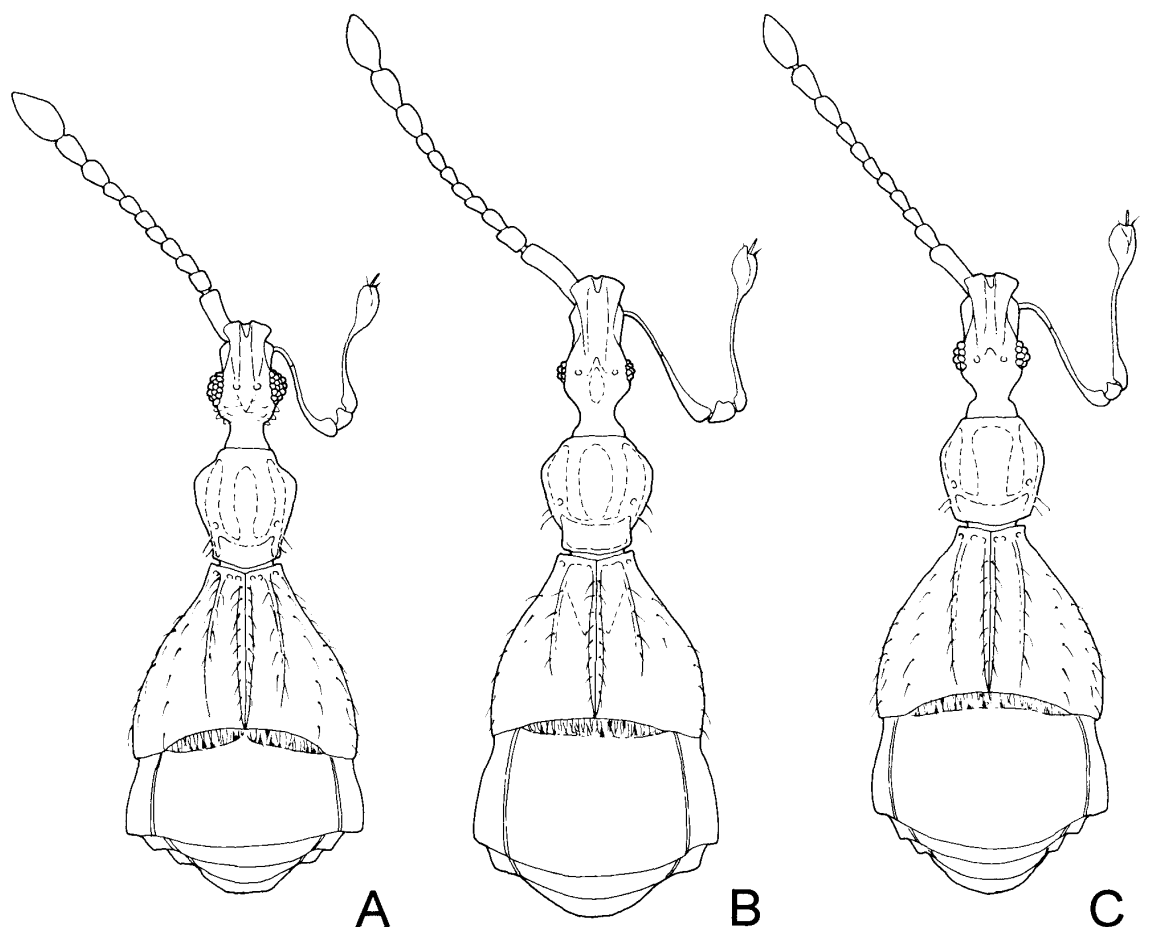


Fig. 1. Simplified male habitus of *Nabepselaphus* spp., dorsal view, with left antenna and right maxillary palpus, legs omitted. A, *N. yinae* sp. nov.; B, *N. yunnanicus* sp. nov.; C, *N. yasukii* Nomura. Scale: 0.5 mm.

ered with short and erect hairs, very slender in basal 4/7, strongly swollen and nearly fusiform in apical 3/7, with longitudinal sulcus in apical 1/5, and with short palpal spine and a few setae at apex.

Pronotum (Fig. 2A) slightly longer than wide, widest at apical 1/3, then weakly narrowing posteriorly; median longitudinal depression deep, narrow, and parallel-sided posteriorly; transverse sulcus deep and V-shaped. Metasternum (Fig. 9A) strongly convex at middle, almost glabrous in median part, with broad longitudinal setose fringe at center. Elytra (Fig. 1A) weakly convex in middle part, each elytron with 2 large and deep basal foveae, and with broad median longitudinal carina running from basal foveae to posterior margin; chaetotaxial formula of elytra 1-0-2/3-0-1-1/2.

Abdomen (Fig. 1A) large, wider than long, with sparse pubescence. Fourth segment largest, weakly broadened posteriorly; 4th tergite gently convex, with large and parallel-sided paratergites; 4th sternite (Fig. 9A) weakly convex, with small fringe at middle.

Male genitalia (Fig. 3A–C) well-sclerotized and subsymmetrical. Parameres (*pm* in Fig. 3) paired, elongate, twisted near middle, broadened near base, rounded

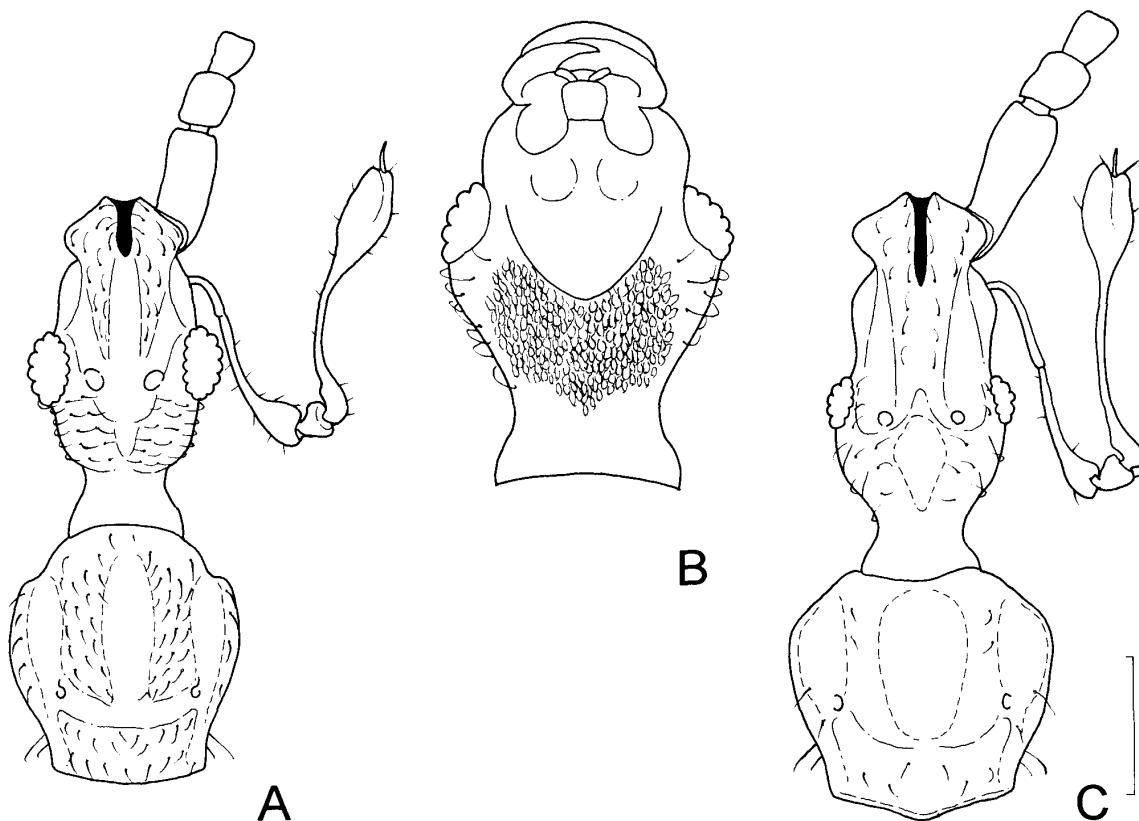


Fig. 2. Head and pronotum of *Nabepselaphus* spp. in male. A–B, *N. yinae* sp. nov.; C, *N. yunnanicus* sp. nov. A, C, head and pronotum, dorsal view, with proximal part of right antenna and right maxillary palpus; B, head, ventral view, antennae and palpi omitted. Scale: 0.2 mm.

at apex. Median lobe (*ml*) nearly reniform; basal foramen (*bf*) small and transverse, with large, strongly sclerotized projection on posterior margin; basal capsule (*bc*) bulbous, with large, elliptical, membranous part (*mp*) and small, circular plate (*cp*); apical part of median lobe broadly membranous on dorsal side, with pair of large, arcuate hooks and keel-like projection at median part near apex. Endophallus (*ep*) consisting of pair of large plates and slender spine.

Female. Body length 1.73–1.78 mm, width 0.71–0.74 mm. Similar in habitus to male, but metasternum weakly convex, sparsely pubescent in anteromedian part, almost glabrous in posteromedian part, without setose fringe; 4th abdominal sternite uniformly pubescent, without fringe. Ninth abdominal sternite (Fig. 10A) composed of pair of weakly sclerotized plates; each plate broadened posteriorly, with long and acute projection near apex. Genital plate (Fig. 10A, B) articulated on both sides with plates of 9th sternite via lateral projections of apical part of former (Fig. 10A), constricted near middle, bilobed basally, with pair of bifurcate projections on ventral side (Fig. 10B).

Distribution. Yunnan, southwestern China (Gaoligongshan Mts.).

Remarks. This new species is distinct within the genus in having large eyes, a sparsely pubescent body, and nearly symmetrical male genitalia. Additionally, it is unique in having the gular area densely covered with scales, like members of the genus *Pselaphus*. This character state can be considered plesiomorphic, as can

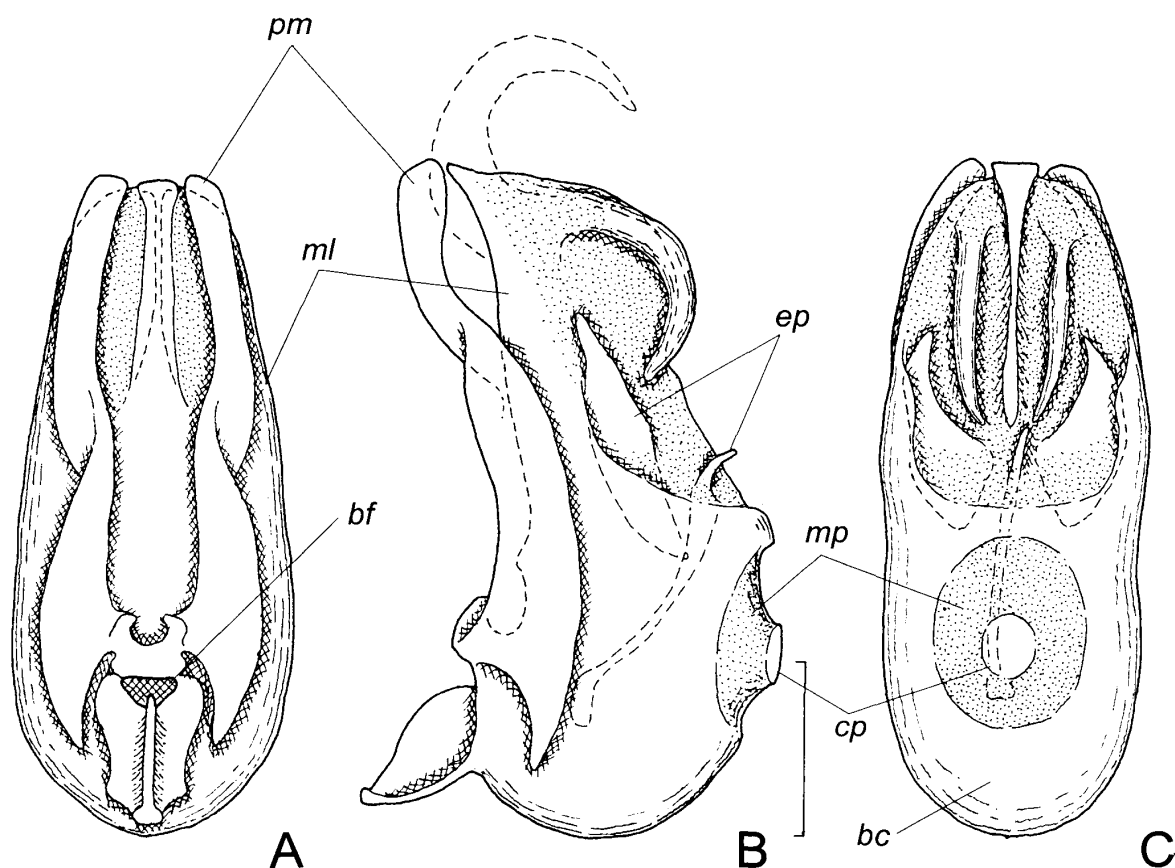


Fig. 3. Male genitalia of *Nabepselaphus yinae* sp. nov. A, ventral view; B, lateral view; C, dorsal view. Scale: 0.1 mm. Abbreviations: *bc*, basal capsule (of median lobe); *bf*, basal foramen; *cp*, cuticular plate; *ep*, endophallus; *ml*, median lobe; *mp*, membranous part; *pm*, paramere.

the transverse sulcus of the pronotum.

The collection data for this new species were reported previously in part by Nomura (2000: 232) for Pselaphini, "Gen. et sp. undet. 1".

***Nabepselaphus yunnanicus* sp. nov.**

(Figs 1B, 2C, 4A–C, 9B, 10C)

Type material. Holotype: ♂ (NSMT-I-C 200032), Dabei, 2,430 m alt., Gaoligongshan Mts., Tengchong Xian, 11-X-1996, S. Nomura leg. Paratypes: 4 exs, same data as for holotype; 1 ♂, same locality as above, but 2,240 m alt., 11-X-1996, K. Ishii *et al.* leg.; 1 ♂, same data as above, but 2,410 m alt.; 1 ♀, same locality as above, but 2,440 m alt., by Tullgren funnel, 11-X-1996. S. Nomura leg.

Description. *Male.* Body length 1.86–2.03 mm, width 0.78–0.83 mm. Body (Fig. 1B) strongly narrowed at head and pronotum, broadened at elytra and abdomen, reddish brown and shiny.

Head (Fig. 2C) large and elongate, strongly convex at frontal rostrum, with long and very narrow frontal notch in anterior 1/6, and with indistinct median longitudinal groove and pair of distinct lateral grooves; vertex weakly convex, with

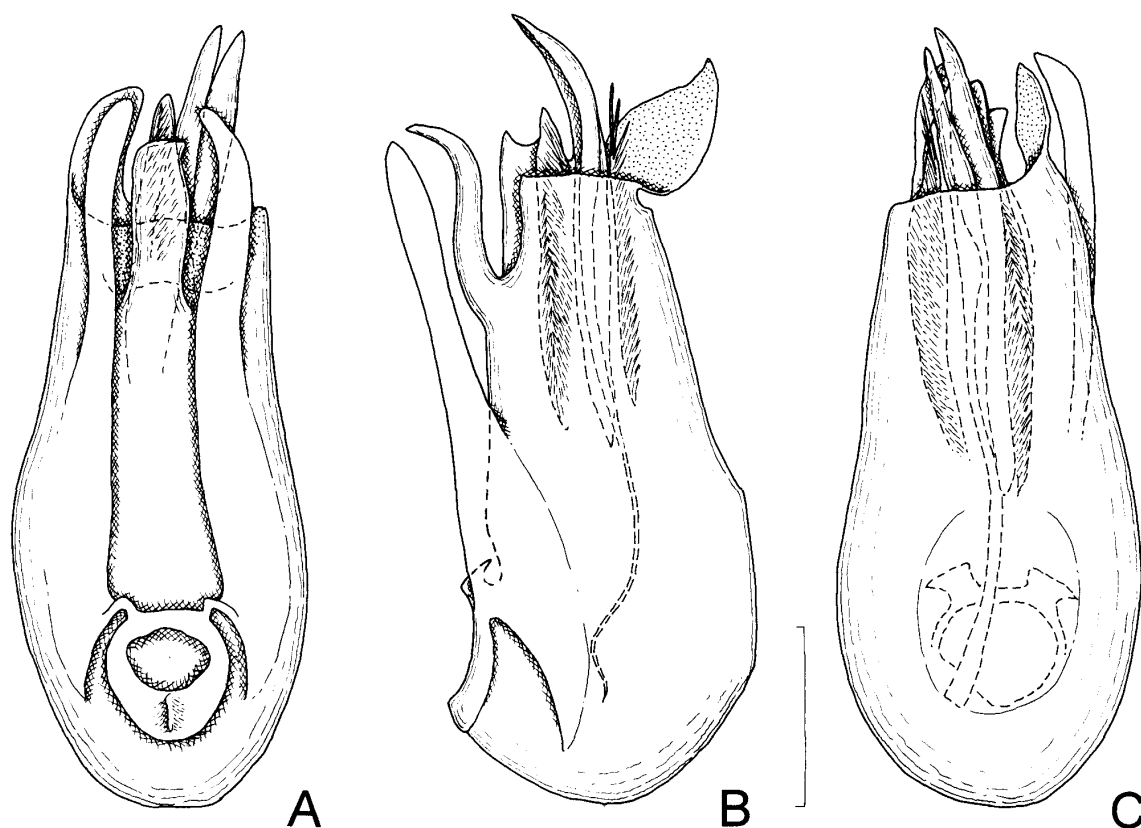


Fig. 4. Male genitalia of *Nabepselaphus yunnanicus* sp. nov. A, ventral view; B, lateral view; C, dorsal view. Scale: 0.1 mm.

pair of small, round dorsal tentorial pits, and with ovoid middle depression; post-genae broad, sparsely pubescent, each with 2 short and oblique carinae behind eye; gular area shallowly concave, very sparsely setate. Eyes (Fig. 2C) very small, each composed of about 6 facets. Antennae (Fig. 1B) long and slender; 1st segment elongate and subcylindrical, weakly thickened distally; 2nd short and thick, obliquely subcylindrical; 3rd slightly smaller than 2nd, short and thickened distally; 4th to 8th subequal in width, each short and subcylindrical; 9th and 10th large and ovoid, 10th slightly larger than 9th; 11th largest and ovoid, about as long as 1st; relative lengths (widths) of 1st to 11th segments to width of 1st segment 2.5 (1.0): 1.0 (0.9): 0.9 (0.8): 0.8 (0.7): 0.9 (0.7): 0.9 (0.7): 0.9 (0.7): 0.8 (0.7): 1.2 (0.8): 1.2 (1.0): 2.6 (1.3). Maxillary palpi (Fig. 2C) long and slender; 1st segment short and tubular, arcuately curved; 2nd long, very slender in basal 2/3, then thickened distally; 3rd short, nearly triangular in dorsal view; 4th largest, about as long as head, very slender in basal 7/10, swollen and ovoid in apical 3/10, with short, broad sulcus on external side in apical 1/5 and short palpal spine at apex.

Pronotum (Fig. 2C) slightly longer than wide, widest at anterior 1/3, with pair of deep lateral foveae at posterior 2/5; median depression shallow; lateral grooves broad and indistinct; arcuate transverse sulcus and pair of short setae present just anterior to lateral foveae; dorsal surface covered with very sparse pubescence except lacking in median depression, grooves, and sulcus. Metasternum (Fig. 9B) broad and transverse, convex in median part, sparsely pubescent, almost glabrous

in middle. Elytra (Fig. 1B) nearly trapezoidal, convex in posterior part, weakly depressed in antero-median part; each elytron with large basimedial and small basiolateral foveae; broad median longitudinal carina reaching posterior 1/3; chaetotaxial formula of elytra 1-0-1-0-1-0-1. Legs short, with femora, tibiae, and tarsi slender.

Abdomen (Fig. 1) wider than elytra. Fourth abdominal segment particularly large; 4th tergite gently convex, sparsely pubescent, with pair of broad paratergites; 4th sternite (Fig. 9B) broad and transverse, with pair of longitudinal setose fringes at middle. Fifth and 6th segments short, subequal in length; 7th longer than 6th, transverse and trapezoidal in posterodorsal view.

Male genitalia (Fig. 4A–C) weakly sclerotized. Parameres long and slender. Median lobe nearly reniform in lateral view, bulbous in basal part, weakly narrowed distad in apical part, truncate at apex, with indistinct membranous part on dorsal side, large membranous apophysis at left side of apex, and with short ventral process at apical 1/4. Endophallus containing long, broad apical sclerite, narrow and thin basal sclerite, and two densely spinulate plates.

Female. Body length 1.94 mm, width 0.79 mm. Very similar to male, but 4th abdominal sternite uniformly covered with very sparse pubescence, lacking setose fringe. Ninth abdominal sternite (Fig. 10C) almost symmetrical, very small and partly membranous. Genital plate (Fig. 10C) strongly sclerotized, nearly T-shaped in ventral view.

Distribution. Yunnan, southwestern China (Gaoligongshan Mts.).

Remarks. This species is easily distinguished from its congeners by the elongate head with a long and very narrow apical notch on the frontal rostrum. It is also distinct in lacking setose fringe on the median part of the metasternum in male. It was recorded as “*Pselaphogenius* sp. 3” in Nomura (2000: 231).

***Nabepselaphus laohushanus* sp. nov.**

(Figs 5A, 6A–C, 9C, 10D)

Type material. Holotype: ♂ (NSMT-I-C 200033), Mt. Laohushan, 2,200 m alt., Dali-shi, 3-IX-1993, Y. Watanabe leg. Paratype: 1 ♀, same data as for holotype.

Description. *Male.* Body length 1.84 mm, width 0.75 mm. Body reddish brown; maxillary palpi and tarsi yellowish brown.

Head (Fig. 5A) longer than wide, nearly ovoid in dorsal view; frontal rostrum broadened at antennal bases, with short, U-shaped apical notch; median longitudinal groove indistinct; vertex gently convex, finely rugose and sparsely pubescent, with very shallow, indistinct depression at middle; postgenae broad and rounded; gular area with dense whitish scales on ventromedian part. Eyes (Fig. 5A) small and ovoid, each composed of 7–8 facets. Antennae long and slender; 1st segment (Fig. 5A) thick and elongate, finely rugose, subcylindrical in apical part, slightly thickened distally; 2nd narrower than 1st, slightly longer than wide, subcylindrical; 3rd to 8th subequal in width, each small, nearly ovoid, slightly swollen distally; 9th and 10th subequal in length, each ovoid, 9th larger than 8th; 10th slightly wider than 9th; 11th largest and ovoid, twice as long as wide; relative lengths (widths) of 1st to 11th segments to width of 1st segment 2.4 (1.0): 1.0 (0.7): 0.8 (0.6): 0.7 (0.6): 0.7 (0.6): 0.8 (0.6): 0.8 (0.6): 0.7 (0.6): 1.1 (0.8): 1.1 (0.9): 2.4 (1.2). Maxillary palpi (Fig. 5A) long and slender; 1st segment short and narrow, weakly curved near base;

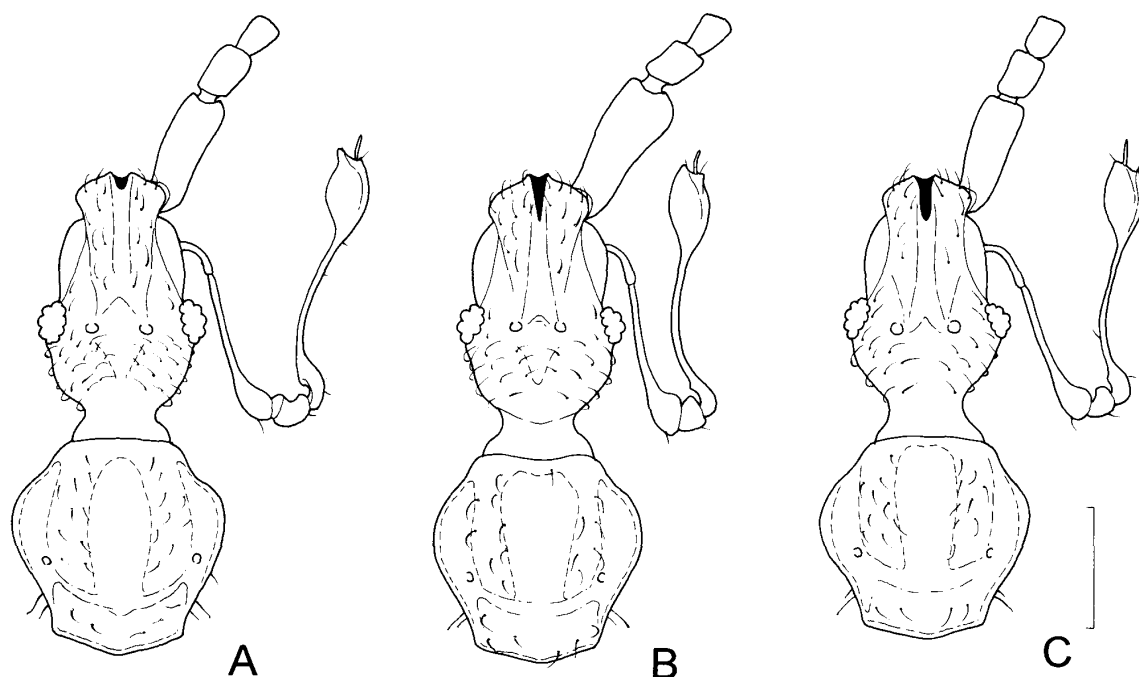


Fig. 5. Head and pronotum of *Nabepselaphus* spp. in male, dorsal view, with proximal part of right antenna and right maxillary palpus A, *N. laohushanus* sp. nov.; B, *N. jizushanus* sp. nov.; C, *N. yulongxueshanus* sp. nov. Scale: 0.2 mm.

2nd long and slender, very narrow in basal 2/3, then thickened distad in apical 1/3; 3rd short and thick, nearly triangular in dorsal view; 4th largest, longer than 1st to 3rd combined, weakly thickened in basal 1/7, very narrow from basal 1/7 to 5/7, then strongly swollen and ovoid in apical 2/7, with longitudinal sulcus on external side of swollen part, and with short palpal spine and group of fine setae at apex.

Pronotum (Fig. 5A) slightly longer than wide, widest at anterior 1/3, with shallow median depression, pair of shallow lateral grooves, and deep, well-defined transverse sulcus; dorsal surface covered with fine, dense reticulation and sparse pubescence except in depression, grooves, and sulcus. Metasternum (Fig. 9C) weakly convex and nearly glabrous in median part, with pair of small, setose fringes at middle. Elytra wider than long, narrowing anteriorly, nearly trapezoidal, gently convex, with dense, minute reticulation; each elytron with large basimedial and indistinct, small basilateral foveae, and with broad median longitudinal carina almost reaching to posterior margin; chaetotaxial formula of elytra 1-0-1-0-1-0-2/3. Legs short and elongate; femora thick, tibiae and tarsi slender.

Abdomen wider and shorter than elytra. Fourth tergite broad and gently convex, densely covered with whitish scales along anterior margin, with sparse pubescence on remaining part; paratergites broad, each subparallel-sided; 4th sternite (Fig. 9C) very large, slightly convex, with very sparse pubescence and pair of small setose fringes at middle, as on metasternum. Fifth and 6th segments very short, subequal in length; 7th longer than 6th, transverse and nearly trapezoidal in posterior view.

Male genitalia (Fig. 6A–C) well-sclerotized. Parameres paired, each long and slender, left paramere slightly longer than right. Median lobe with bulbous basal

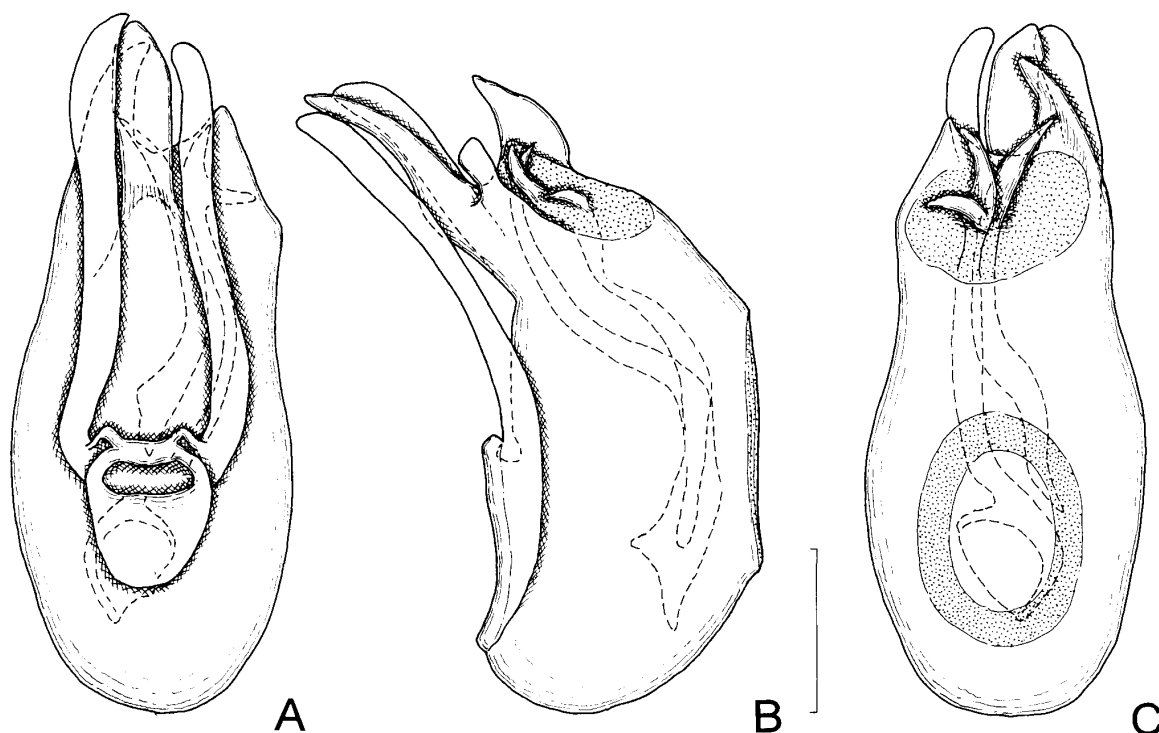


Fig. 6. Male genitalia of *Nabepselaphus laohushanus* sp. nov. A, ventral view; B, lateral view; C, dorsal view. Scale: 0.1 mm.

capsule, weakly narrowed distally, with large projection at left side of apex, small projection at right side of apex, and large ventral process on ventro-apical side. Endophallus containing two large spines: left spine slender, acute at apex; right spine broadened near base, bifurcate at apex.

Female. Body length 1.84 mm, width 0.75 mm. Very similar to male, but metasternum glabrous, without median setose fringe; 4th abdominal sternite without setose fringe at middle. Ninth sternite (Fig. 10D) weakly sclerotized, consisting of pair of narrow sclerites connected to each other by membrane. Genital plate (Fig. 10D) almost membranous, indefinite in shape.

Distribution. Yunnan, southwestern China (Mt. Laohushan, Dali-shi).

Remarks. This new species is very similar to the type species, *N. yasukii* (Fig. 1C), in habitus and external characters. However, it is separated by having a median longitudinal groove and lacking a pair of lateral grooves on the frontal rostrum. It also differs by the presence of a pair of small setose fringes on the metasternum and two spines in the endophallus of the male genitalia. It was recorded by Nomura (2000: 232) as "*Pselaphogenius* sp. 5".

***Nabepselaphus jizushanus* sp. nov.**
(Figs 5B, 7A–C, 9D)

Type material. Holotype: ♂ (NSMT-I-C 200034), Mt. Jizushan, 2,340 m alt., Binchuan Xian, 25-X-1995, Y. Watanabe and N. Xiao leg. Paratype: 1♂, same data as

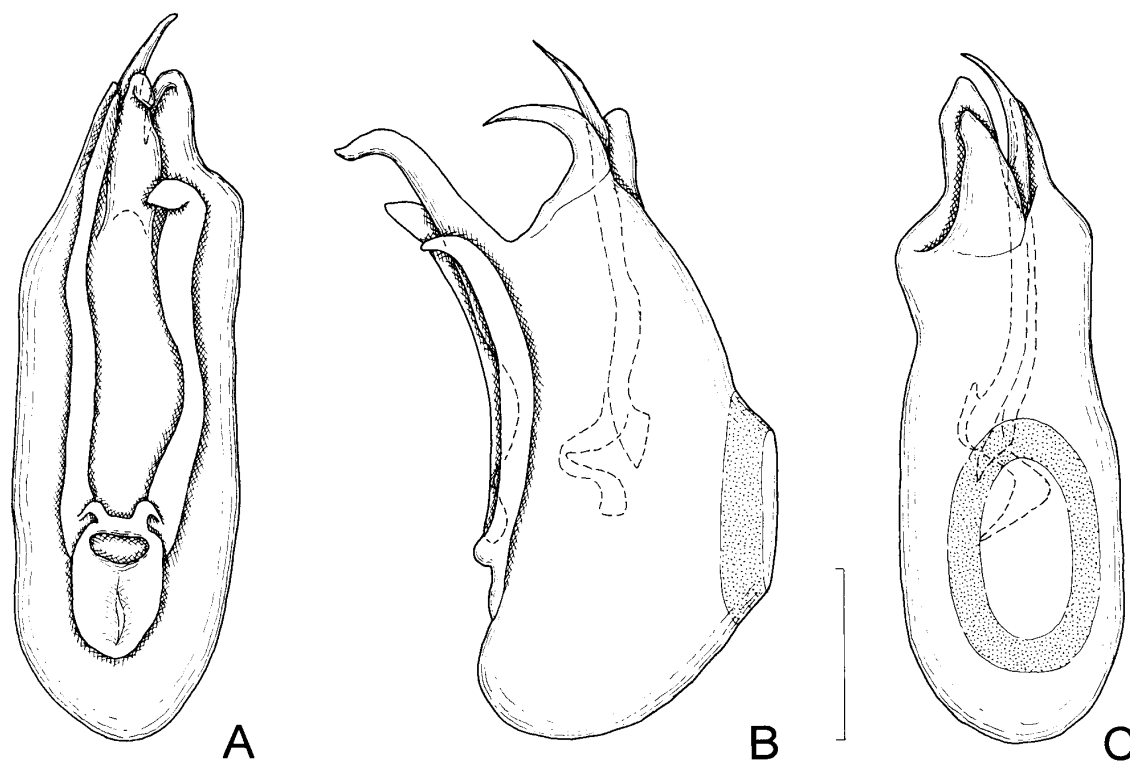


Fig. 7. Male genitalia of *Nabepselaphus jizushanus* sp. nov. A, ventral view; B, lateral view; C, dorsal view. Scale: 0.1 mm.

above, but 2,260 m alt.

Description. *Male.* Body length 1.81–1.88 mm, width 0.66–0.71 mm. Similar to *N. laohushanus* in habitus and external features, but differing in following characters: 1st antennal segment (Fig. 5B) more thickened distally than in *N. laohushanus*; chaetotaxial formula of elytra 1-0-2-0-1-0-2/3; paratergites of 4th abdominal segment each narrower than in *N. laohushanus*, slightly broadened posteriorly; setose fringes of metasternum and 4th abdominal sternite (Fig. 9D) larger than those of *N. laohushanus*.

Male genitalia (Fig. 7A–C) well-sclerotized. Parameres paired, each long and slender. Median lobe bulbous in basal capsule, slightly narrowed apically in lateral view, with elliptical membranous part and sclerite on dorsal side, short projection on left side of apex, acute and ventrally curved projection on right side of apex, and long and narrow ventral process on ventro-apical side. Endophallus with elongate sclerite, this acutely projecting at apex, bifurcate and twisted at base.

Female. Unknown.

Distribution. Yunnan, southwestern China (Binchuan Xian).

Remarks. This species was recorded as “*Pselaphogenius* sp. 6” in Nomura (2000: 232). It is very similar to *N. laohushanus* in its habitus, the cephalic structures, and the metasternum with a pair of small setose fringes in the male; however, it is characterized by the stout first antennal segment, which is thicker than that in *N. laohushanus*, and by differences in the male genital structure.

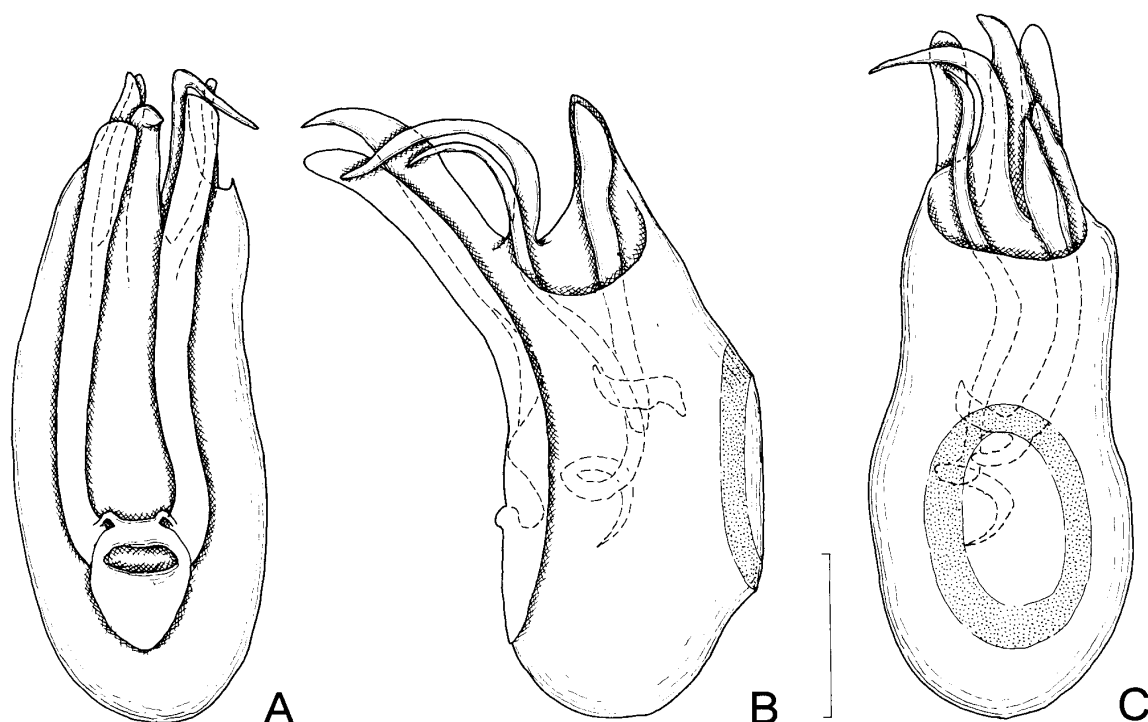


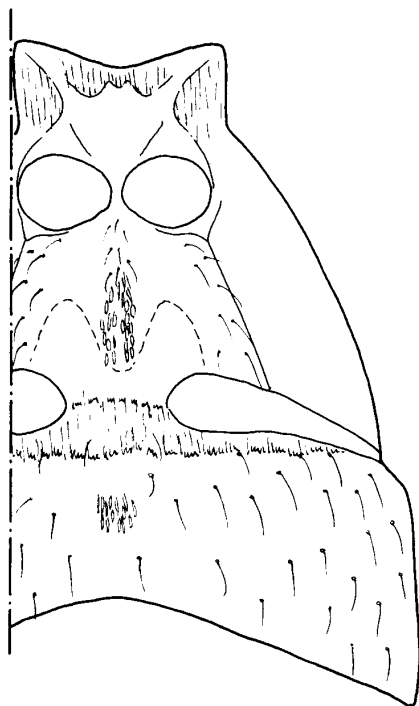
Fig. 8. Male genitalia of *Nabepselaphus yulongxueshanus* sp. nov. A, ventral view; B, lateral view; C, dorsal view. Scale: 0.1 mm.

***Nabepselaphus yulongxueshanus* sp. nov.**
(Figs 5C, 8A–C, 9E, 10E)

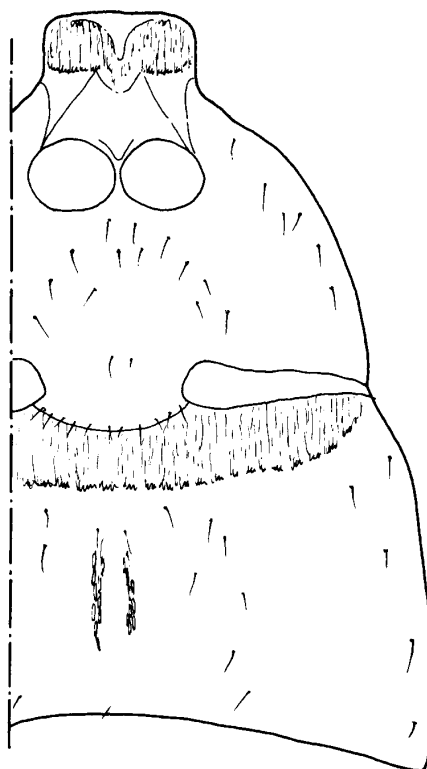
Type material. Holotype: ♂ (NSMT-I-C 200035), Mt. Yulongxueshan, 3,160 m alt., Lijiang Xian, 21-X-1995, Y. Watanabe leg. Paratypes: 3♂, 1♀, same data as for holotype.

Description. *Male.* Body length 1.70–1.79 mm, width 0.66–0.71 mm. Very similar in habitus and external features to *N. laohushanus*, *N. jizushanus*, and *N. yasukii* (Fig. 1C), but apical notch of frontal rostrum (Fig. 5C) longer than that in *N. laohushanus*, about 20% as long as head; 1st antennal segment (Fig. 5C) less thickened than in *N. jizushanus*, about same as that in *N. laohushanus*; chaetotaxial formula of elytra 1-0-2-0-1-0-2/3; metasternum (Fig. 9E) sparsely pubescent in median part, with pair of indistinct fringes at middle; paratergites of 4th abdominal segment each narrow and slightly broadened posteriorly, same as in *N. jizushanus*; 4th sternite (Fig. 9E) sparsely pubescent, with pair of setose fringes longer and wider than those of *N. laohushanus*.

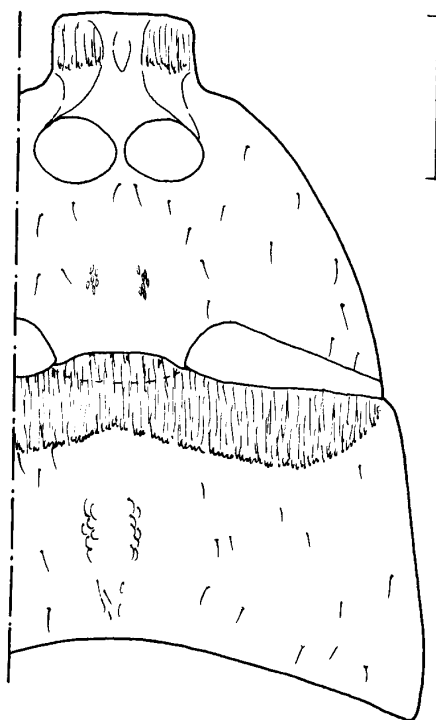
Male genitalia (Fig. 8A–C) well-sclerotized. Parameres almost symmetrical, each long and slender. Basal capsule of median lobe bulbous, with elliptical membranous part and sclerite on dorsal side; apical part of median lobe slightly narrowed, with short projection at left side of apex, and large, slender, ventrally curved spine at right side; ventral process very large and narrow, sharpened distally and weakly curved ventrally. Endophallus containing two slender spines: left spine weakly thickened and projecting apically, acute at apex; right spine longer and slenderer than left one, narrowed toward apex, coiled near base.



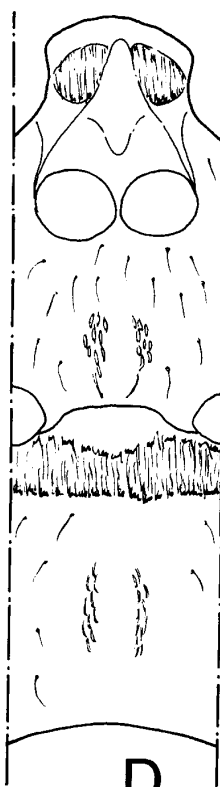
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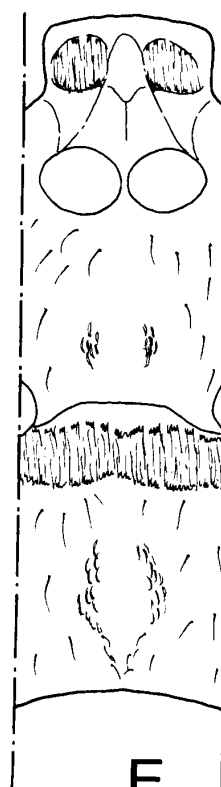
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C



D



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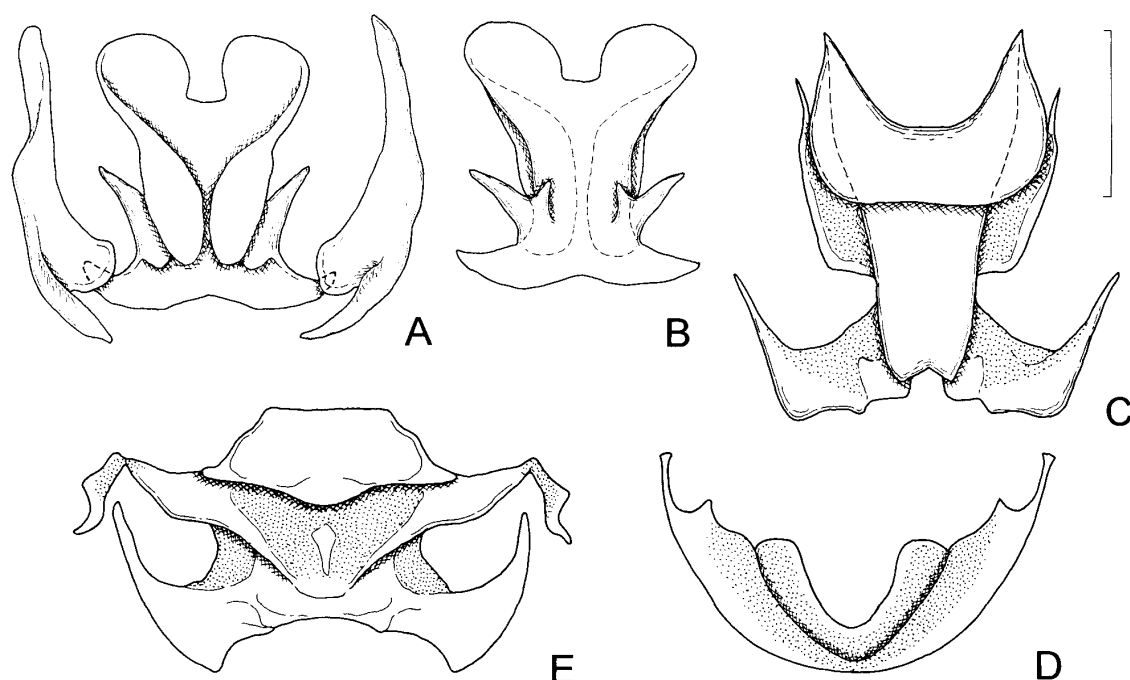


Fig. 10. Female genitalia of *Nabepselaphus* spp. A–B, *N. yinae* sp. nov.; C, *N. yunnanicus* sp. nov.; D, *N. laohushanus* sp. nov.; E, *N. yulongxueshanus* sp. nov. A, C, D, E, 9th abdominal sternite and genital plate, ventral view; B, genital plate, dorsal view. Scale: 0.1 mm.

Female. Body length 1.68–1.75 mm, width 0.66 mm. Similar to male, but metasternum uniformly covered with pubescence, without setose fringe in median part; 4th abdominal sternite without setose fringe at middle. Ninth sternite (Fig. 10E) weakly sclerotized, containing pair of subtriangular sclerites connected with each other by membrane. Genital plate (Fig. 10E) transverse and medially membranous, composed of well-sclerotized internal plate, pair of narrow lateral lobes, and small sclerite in median membranous part.

Distribution. Yunnan, southwestern China.

Remarks. This new species resembles *N. yasukii* (Fig. 1C), *N. laohushanus*, and *N. jizushanus* in habitus and external characters. However, it is clearly different from these species in that the median lobe of the male genitalia bears a short projection on the left side of the apex and a long, slender, ventrally curved spine on the right side. It was recorded in Nomura (2000: 232) as “*Pselaphogenius* sp. 7”.

Key to the *Nabepselaphus* species from China

1. Eyes very large; gular area widely covered with dense, whitish scales; male

Fig. 9. Meso- and metasterna and 4th abdominal sternite of *Nabepselaphus* spp. in male, ventral view, legs omitted. A, *N. yinae* sp. nov.; B, *N. yunnanicus* sp. nov.; C, *N. laohushanus* sp. nov.; D, *N. jizushanus* sp. nov.; E, *N. yulongxueshanus* sp. nov. Scale: 0.2 mm.

- genitalia almost symmetrical *N. yinae* sp. nov.
- Eyes small; gular area scarcely or narrowly covered with whitish scales; male genitalia asymmetrical..... 2
 - 2. Head elongate, about twice as long as wide, with long and very narrow apical notch on frontal rostrum; median longitudinal carina of elytra with one line of hairs..... *N. yunnanicus* sp. nov.
 - Head nearly ovoid, 1.6–1.8 times as long as wide, with V- or U-shaped, short apical notch on frontal rostrum; median longitudinal carina of elytra with 1–2 lines of hairs..... 3
 - 3. Male metasternum with small setose fringe at middle; median lobe of male genitalia with short ventral process and two blunt apical projections *N. yasukii* Nomura
 - Male metasternum with pair of small setose fringes at middle; median lobe of male genitalia with long ventral process and two distinct apical projections..... 4
 - 4. Head with very short apical notch on frontal rostrum; median longitudinal carina of elytra with one line of hairs..... *N. laohushanus* sp. nov.
 - Head with elongate apical notch on frontal rostrum; median longitudinal carina of elytra with two lines of hairs 5
 - 5. First antennal segment clearly thickened distad; ventral process of median lobe of male genitalia about 1/4 as long as median lobe; right apical projection of median lobe broadened basally, weakly curved ventrally *N. jizushanus* sp. nov.
 - First antennal segment less thickened distally; ventral process of median lobe of male genitalia about 1/3 as long as median lobe; right apical projection of median lobe long and slender, strongly curved ventrally, turned leftward at apex *N. yulongxueshanus* sp. nov.

Discussion

The genus *Nabepselaphus* is regarded as a monophyletic group supported by an autapomorphy that the pronotum possesses a glabrous median depression and a pair of glabrous, lateral, longitudinal grooves. Species of this genus are similar to those of *Pselaphogenius* in having the following apomorphic characters: the strongly narrowed head and pronotum, the strongly elongate and pedunculate fourth palpal segment with a few apical setae, and the elytra each with a broad longitudinal carina between the inner and outer basal foveae. The present genus also has plesiomorphic characters, *viz.*, the transverse antebasal sulcus on the pronotum and two lines of hairs in the median row (except for *N. yunnanicus* and *N. laohushanus*). The latter feature is observed only in *P. erlanishanus* described by Nomura (2003) within the genus *Pselaphogenius*. Additionally, the following important characters are observed only in *Nabepselaphus yinae* sp. nov.: 1) symmetrical male genitalia lacking a developed endophallus (Fig. 3); 2) dense scales covering the gular area (Fig. 2B) as in some species of *Pselaphus*. These two characteristics are also regarded as being plesiomorphic in comparison with the corresponding states of congeners and species of the other genera.

At first sight, it seems to be difficult to determine the phylogenetic position of this genus, because of the mosaic of apomorphic and plesiomorphic characters. Though, it is inferred to be a sister-group of *Pselaphogenius* on the basis of some

synapomorphies shown above.

Every species of this genus has a relatively small distributional range, and the ranges of respective species are close to one another. This distributional pattern is similar to that shown by *Pselaphogenius* in Yunnan and Sichuan (Nomura 2003). However, the distributional area of the genus *Nabepselaphus* is distinctly smaller than that of *Pselaphogenius*, being restricted to Yunnan Province. Further surveys should be done in China and adjacent East Asian countries in order to clarify the distributional range and species diversity of *Nabepselaphus*.

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